

Type Founding and Printing

During the

Nineteenth Century,

A Short Review

by

James Higgins.

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Ray Street, Farringdon Road,
London, E.C.

To all those who take an interest in
Type Founding, Printing, and Allied Trades,
this Review is respectfully dedicated

By the
Author.

31st December, 1900.

A Family Record.

VINCENT FIGGINS the 1st, commenced in 1792, retired in 1836 = 44 years.

V. & J. F.	VINCENT	2nd,	„	„	1821,	„	„	1858 = 37	„
	JAMES	1st,	„	„	1825,	„	„	1868 = 43	„
	JAMES	2nd,	„	„	1856,	—	1900 = 44	„	

Present Head of the Firm of V. & J. FIGGINS.

Introduction.

THE dawn of a new century may well seem to be an appropriate time to record the work done and progress made in various departments of industry, and it is not, therefore, unreasonable that some Review should appear, to mark the Type Founder's share in perhaps the most important feature of the nineteenth century—the marvellous development of printing and its allied trades.

So much has been written about the introduction and early history of printing, that it is unnecessary to take up that branch of the subject; during 150 years, 1650 to 1800, great progress had been made in every direction, and the craving, not only for books, but for expensive works, profusely illustrated by the best Engravers of the day, were marked features at the close of the eighteenth and commencement of the nineteenth centuries. No better evidence of this can be found than in the splendid edition (7 vols.) of "Macklin's Bible," commenced in 1791 and completed in 1800, Thompson's "Seasons," published by P. W. Tomkins, completed in 1798, and Hume's "History of England" (5 vols.) published by Robert Bowyer, and which, although commenced in 1793, was not completed until 1806; these were all printed by T. Bensley, the greater portion of the type used having been supplied by Vincent Figgins, the first Type Founder of that family, who had been the apprentice of, and afterwards manager to, the celebrated Mr. Joseph Jackson, who died in January, 1792. His death and the subsequent sale of his Foundry and business gave his late manager, Mr. Vincent Figgins, the opportunity of commencing business on his own account, and first in Holborn, and afterwards in West Street, Smithfield, he established what is now generally known as the Ray Street Type Foundry.

Such complete and accurate records of all the early Type Founders and Foundries have been given in the book, published in 1887, by the late Mr. Talbot Baines Reed, entitled "A History of the Old English Letter Founders," that it is needless to enter fully into that very interesting subject, but it may be noted that of all the Foundries in existence at the commencement of the nineteenth century only three remain; all the rest having been sold and distributed, absorbed by or divided between the different houses—in one case, that of the Baskerville Foundry, the plant became the property of a foreign purchaser, and was sent abroad. Two only are still carried on in the original name, and but one, that of V. & J. Figgins, has remained in the same family, descending from father to son for three generations.

For the first thirty or perhaps thirty-five years, the precise date would vary with the different Founders, attention was mainly directed to the production of improved faces, both of Roman and Italic, to take the place of the earlier Old Styles and the fat faces that immediately succeeded them, no great change was made in the method of manufacture, all type was hand cast, pumps being used for Scripts, fancy faces, and Borders that were too delicate or ornamental for hand casting; machinery only became possible at a much later date.

Before important changes of any kind could be made either in methods of manufacture or the adoption of standards that could be generally recognised as satisfactory, it was necessary to grasp the position in all its bearings.

Height to paper was the first question to be dealt with and arranged for; at that time at least five different heights, all regarded as standards, were in constant use; they were in the following order:—

DUTCH.—The highest on record, still partly in use in Holland.

OXFORD (University Press).—Used for works on the classic side.

FRENCH.—The general standard for France and the Continent.

SCOTCH.—A special height never in general use in England, but still the standard in three important offices, viz.—Oxford University Press (Bible side), Messrs. Eyre & Spottiswoode, and Messrs. Spottiswoode & Co., London.

ENGLISH.—This may be called the universal standard, for with the exceptions above noted, it is in general use in England, Ireland, Scotland, India, Australasia, Africa, America, and Canada.

It was always of the greatest importance that height to paper should be maintained with the most absolute accuracy; many inventions have broken down, as they could not be depended upon in this most necessary requirement, and even now the faintness or even disappearance of letters in newspapers printed by some of the modern machines (dispensing with type) are not only very noticeable, but in the results are sometimes ridiculous.

Bodies of Type.

The next important feature was an attempt to bring the type bodies into something like uniformity, rendered necessary by a very general desire that "stock" should be kept, in lieu of the general practice of casting to order. It may be stated with perfect accuracy that anything like universal standards did not exist, all the leading Printers had their own standard or "ems," they cared nothing for what others favoured, or from time to time introduced, they selected

the face, or even had one cut, that suited their own taste and work, the body was the one they had adopted, and whoever cast for them must cast to that, ample time was given for the execution of all orders, practically no stock was kept or expected to be, but there was frequently a surplus in the casting which was subsequently made complete, and was available so far as it went for fresh orders from other firms, and thus the standard of one house became the standard of another, until not only for bodies, but also for height to paper, conditions existed that called urgently for reform.

With the large founts of type required by the more important Printers there could be no difficulty, in any case they must be cast, and the only questions were the weight, body and face required, the time necessary for a portion and for completion, the price, and the terms of payment; at that date acceptances were the rule. Under these conditions all the trade had what was desired; bodies, except those needed at the moment, were never discussed. A list, however, of those most in vogue will, perhaps, give the best reason for the desire that steadily grew for some diminution of the varieties, and although absolute uniformity was impossible, it was at least necessary that all the principal foundries should have their own standards, of which stock should be kept, without in any way interfering with special castings, they would still be undertaken, quantity and price being the salient features.

A glance at the variations of the same nominal body will show how difficult the task was, bearing in mind the well-known conditions of the trade; some of those referred to in the tables may be classed as more historical than practical, but as they are recorded in various works on typography, they cannot be ignored. Some may have been introduced to limit the number of bodies, and as the principal contest appears to have been between Pica and Small Pica (the former varies more than any of the others), the larger Pica was perhaps intended to displace English and the smaller to render Small Pica unnecessary—but although many of these were wholly abolished or very sparingly used, too many of each kind still remained in use in various large offices, to make the holding of stock possible without a considerable reduction in their number. The following tables, showing the numerous recorded bodies and those in general use up to about 1836, will give some idea of the difficulties to be overcome; although it was fully understood that time alone could solve the question, that old faces would gradually be discontinued, and new ones on the intended standards would take their place, and that for many years the two systems—individual bodies and standards—must be used side by side.

About this period, 1830 to 1836, the question of type bodies was being seriously considered, not only by the English and Scotch Founders, but also on the Continent, and with the view of establishing one general system, the celebrated house of Firmin Didot in Paris instituted what was called the Point system, and the Didot Point has since then been the rule of the French Founders, and also on the Continent. It may not unnaturally be asked why the new system was not adopted by the English Founders; the reason was, that being introduced on the Continent to suit the conditions existing there, no attention was paid to the necessities of other Countries, no interchange of views took place, and when the scheme was thoroughly examined it was found that the "Unit," or Point, was much too large, and consequently did not provide for many of the bodies most in use, and as they could not be dispensed with, the new system entirely fell through for body founts, and has never been adopted in England except for borders and flowers and various combinations of that character, which are cast on bodies of Half-Emerald (three Didot Points), and various multiples thereof.

It would have been mutually advantageous to the Type Founders and Printers if some general system of universal bodies could have been arrived at, even if its adoption took many years to accomplish; the number of faces of the ordinary Roman and Italic was limited, and although these would of necessity be increased as time went on, others would certainly drop out—casting an ordinary fount to order, even if the body differed from the one generally in use in that particular foundry, did not give rise to any great trouble; many difficulties, however, arose in supplying small founts of Antiques, Elephants, Sans-Serif, Titling Letters, Elongated, Blacks, and especially Greek, not only on different bodies, but frequently on much larger ones than they were originally intended for, to meet the various requirements of large or fat faces lining to Roman. At that date all such were specially cast to pattern, ems were kept for future guidance, and many drawers filled with such patterns were turned over from time to time before additions or sorts could be cast; stocks of these specialities could not be entertained, and many years elapsed before even a start could be made in arranging standards that could be introduced into the different offices.

It is hardly possible to realise in the present day what the conditions of business were fifty years ago; innovations of any kind were looked upon with grave suspicion—many years were frequently spent in the production of a few volumes, Printers and Printing Offices had special features of their own, and anything approaching

uniformity was regarded with disfavour; that spirit no doubt was frequently of advantage in checking any desire for sudden changes, and it also accounts for the length of time then taken to establish many improvements that were admitted to be theoretically desirable.

It is extremely difficult to explain all the variations set forth in the different tables, and to realise accurately what the differences really were—bodies generally had been fixed for some special reason and without the slightest relation, either to each other or to any established rule or measure—some, indeed, were exactly half, others exactly double or treble the nominal body. Two-line and Titling letters were of this description, and split fractions, separate accents, space rules, &c., &c., were necessarily half their nominal bodies or bore some fixed proportion thereto. Until, therefore, bodies were brought to standards more or less accepted by the Printers, it was quite impossible either to keep the much desired stock, or to incur the great expense of producing new faces and many much needed combinations that could only be utilised by those who had adopted that particular standard, or were prepared to add it to those they already had in use.

Although for the purpose of comparison the number of types of any given body have generally been tabulated as so many to the inch or foot, none of them were ever designed or adopted with that end in view, and many of the results thus given can only be read as "approximate," some few, indeed, might be fairly accurate, but it was of no importance either way, and thus such terms as "full," "slack," "slightly over" or "under," "very nearly," &c., have been used by all Type Founders to express the variations found in the different bodies and standards with which they had to deal in meeting the requirements of their Customers both at home and abroad.

Mr. T. C. Hansard, in his "Typographia," published in 1825, thus refers to the foot rule measurement for type bodies:—

"It has been proposed by one of our profession to adopt a fixed standard for all founts by means of the foot measure, and to take one particular size of type as the 'radix;' as the idea is ingenious, and would effectually remedy every inconvenience, I shall give his own words:—'only one thing more would be necessary to render the idea effectual, namely, the omnipotence of an Act of Parliament to command the melting down and re-casting every type in the kingdom.'"

That forecast was right—no system of type bodies that could be universally and internationally adopted has ever been devised, or is ever likely to be; the certain cost is too great, the advantage too problematical. Printers throughout the world will order what they want and consider correct, the Type Founder must supply what they require.

Table of the various Type Bodies recorded and in use up to the
year 1836.

ENGLISH TO MINIKIN.

BODY AND NAME.	Approximate No. of ems to the foot.	DESCRIPTION.
English, Long Bodied	64	Larger than Standard.
" Standard, No. 1 (Figgins)	66	Standard, No. 1.
" " No. 2 (Austin) .....	...	" No. 2, smaller than No. 1.
Pica	70 $\frac{3}{4}$	} Various.
" 	71	
" 	71 $\frac{1}{8}$	
" 	71 $\frac{1}{4}$	
" Standard, No. 1 (Figgins)	71 $\frac{1}{2}$	Standard, No. 1.
" " No. 2	72	" No. 2.
" 	75	Moxon.
Small Pica	76 to 81	Various bodies, larger than Standard.
" " Standard, No. 1 (Figgins) ...	82	Standard, No. 1.
" " " No. 2 (Austin).....	83	Smaller than Standard, No. 1.
Long Primer	89 to 92	Various.
" " Large Body .....	...	Oxford Standard.
" " Standard, No. 2 (Austin) ...	89	Larger than Standard, No. 1.
" " " No. 1 (Figgins) ...	90	Standard, No. 1.
" " " No. 3 Small Body .....	...	Smaller than Standard, No. 1.
Bourgeois, Long Bodied	102 to 103	Three-Line Minikin.
" Standard, No. 1 (Figgins) ...	101 $\frac{1}{2}$	Standard, No. 1.
Brevier, Standard, No. 1 (Figgins).....	112	" No. 1.
" Special .....	...	Slightly under Standard, No. 1.
" Standard, No. 2 (Nichols) .....	...	Smaller than Standard, No. 1.
" Special .....	...	" " Standards, Nos. 1 or 2.
Minion	128 to 132	Various.
" Standard, No. 1 (Figgins).....	...	Standard, No. 1.
" " No. 2, (Austin) .....	...	Smaller than Standard, No. 1.
Emerald, Standard, No. 1 (Figgins)	132	Emerald Standard, No. 1.
" 6 Didot Points .....	...	" Border Standard.
Nonpareil, Half Pica	142 to 150	Various.
" Standard, No. 1 (Figgins).....	143	Standard, No. 1.
" 	144	" No. 2.
Nonpareil on Low Body.....	...	Ruby-Nonpareil Standard.
Ruby, Half Small Pica	164	Ruby Standard.
Pearl	178 to 184	Various.
" Standard, No. 2 (Austin) .....	...	Standard, No. 2.
" " No. 1 (Figgins).....	...	" No. 1.
" " No. 3, Small Body .....	...	" No. 3.
Diamond, Half Bourgeois	203	Standard, No. 1.
" Special .....	...	Smaller than Standard, No. 1.
Half Brevier, Standard, No. 1 (Figgins)...	...	Standard, No. 1.
" " No. 2 (Nichols)...	...	" No. 2 (Smaller than No. 1).
Minikin, Half Nonpareil, 4 to Pica	286	Standard, No. 1.

A very slight study of this Table of Bodies recorded and in use will show what a formidable task it was to reduce the number so as to arrive at standards that could be adopted and recognised for the purpose of keeping stock and for new productions.

English.

This body was little in use except for Law printing, and as that class of work was undertaken by comparatively few houses, and type when required was generally ordered in heavy founts, the actual body was not of importance, and the work only involved a few extra faces, such as Antique, Black, &c.

Pica.

No less than seven of these are recorded and many were in use, but the number was practically reduced to two, and although some others may have remained for a time, they gradually became extinct.

Small Pica.

These were reduced to three, and eventually to one, except in a few special cases, but the face was frequently cast on Pica body to save "leading."

Long Primer.

Four of these were recognised, and three of them became adopted standards, but Standards, Nos. 1 and 2, were generally preferred.

Bourgeois.

This varied very little, and two were sufficient for general purposes; the face was very frequently cast on Long Primer body.

Brevier.

This body, like Long Primer, could not be reduced below four, which continued in use for many years, but Standards, Nos. 1 and 2, were principally selected.

Minion.

This body varied a good deal, but being mainly used for Newspapers, was easily changed either in face or body with each "new dress," as the worn-out type was consigned to the metal pot and there were no standing formes to think of.

Emerald.

This was used much in the same way as Minion, and was quite unknown in the majority of printing offices; the Border Standard was adopted at a later date.

Nonpareil.

This being half Pica, varied in the same way as that body.

The remaining Bodies, viz:—Ruby-Nonpareil to Minikin, were either half the larger bodies, or used only for special requirements, such as split fractions, separate accents, mathematical requirements, or music, and did not greatly concern the general Printer.

Table of the various Type Bodies retained as Standards by the
different Founders in 1836.

The four Bodies to Didot Points were adopted at a later date.

BODY AND NAME.	Adopted Standards, Largest Body first.
English (Figgins)	Standard, No. 1.
„ Two-Line Emerald Border	„ 12 Didot Points.
Pica, Two-Line Nonpareil (Figgins)	„ No. 1.
„ „ „	„ No. 2.
Small Pica, Two-Line Ruby.....	Large Standard.
„ „ „ „ (Figgins)	Standard, No. 1.
„ „ „ „	Small Standard.
Long Primer, Two-Line Pearl (Austin)	Standard, No. 2 (Austin).
„ „ „ „ (Figgins)	„ No. 1.
„ „ „ „	„ No. 3.
„ „ 1½ Emerald Border.	„ 9 Didot Points.
Bourgeois, Three-Line Minikin	„ 3 Minikins.
„ Two-Line Diamond (Figgins)	„ No. 1.
Brevier (Figgins)	„ No. 1.
„ (Nichols)	„ No. 2 (Nichols).
Minion (Figgins)	„ No. 1.
Emerald (Figgins)	„ No. 1.
„ Border	„ 6 Didot Points.
Nonpareil, Half Pica (Figgins)	„ No. 1.
„	„ No. 2.
„ on Low Body, or Ruby-Nonpareil (Figgins)	„ No. 1.
Pearl, Half Long Primer (Austin)	„ No. 2 (Austin).
„ „ „ Standard (Figgins)	„ No. 1.
„ „ „ Small Body	„ No. 3.
Diamond, Half Bourgeois (Figgins)	„ No. 1.
Half Brevier (Figgins)	„ No. 1.
„ (Nichols)	„ No. 2 (Nichols).
Half Emerald, Border.....	„ 3 Didot Points.
Minikin, Half Nonpareil, 4 to Pica (Figgins)	„ No. 1.

A reference to the Table of adopted Standards will show that considerable progress was made in the reduction of bodies nominally the same, but variations continued for many years; only two of the "Austin" bodies remained, but still the list included two Picas, three Small Picas, three Long Primers, two Breviers, two Nonpareils, and three Pearls. These could not be got rid of, and as every Founder was perfectly free to cast to any pattern or "ems" besides his own "Standard," no great difficulties arose; uniformity did not exist, but stock to the required face or body was more or less available, and special casting was still possible without any great delay, to meet all cases where the adopted Standards were not approved of or were considered to be unsuitable.

Under these altered circumstances special bodies greatly diminished in number, and their place was gradually taken by one or more of the recognised Standards, although progress in that direction was extremely slow.

The prospect, however, of generally adopted Standards had the effect of greatly stimulating the production of new faces, more especially in complete and uniform series, improved Antiques, Clarendons, Extended and Condensed of various designs, Texts, Scripts, Court Hand, &c., fully occupied the attention of the Type Founders; great progress was also made in improving and developing the powers and resources of the different houses, not only by the introduction of new faces, but also in the addition of many of those "sundries," useful to the Author, Printer, and Publisher, but not very remunerative to the Type Founder, in consequence of the small number required and the absolute certainty that except indirectly the outlay would never be made good.

At the same time a very cordial and genuine good feeling existed between the Printers and the Type Founders—the latter were consulted as fresh and novel projections and requirements arose, and both worked together for the common good, practical knowledge and experience in all details of the different branches enabled the heads of establishments to talk over and conquer all difficulties, extraordinary expenses were divided or adjusted with perfect unanimity, and the first half of the century may be described as a period of great utility and advancement in all the Arts and Crafts that were destined to assist in the development and improvement of Type Founding, Printing, and the allied Trades.

Didot Points.

NAME.	Didot Points.	Variations.	Nearest English Equivalent.
Gros Texte	Corps 14	.....	Long Bodied English.
St. Augustin ...	„ 12	Smaller than	English Standard.
Cicero	„ 11	Smaller than	Pica Standard.
Philosophie	„ 10	Much larger than	Small Pica Standard.
		Very nearly	Long Primer Standard.
Petit Romain ...	„ 9	Slightly under	„ „ „ No. 2.
		Same as	1½ Emerald Border.
Gaillarde	„ 8	Very nearly	Bourgeois Standard.
		Much smaller than	Brevier Standard, No. 2.
Petit Texte	„ 7	Very much smaller than	„ „ No. 1.
		Slightly larger than	Minion.
		Smaller than	Emerald Standard.
Mignon	„ 6	Same as	Emerald Border.
		Much under Standard, No. 1.	Nonpareil.
Nonpareille	„ 5	Larger than „ No. 3.	Ruby.
		Smaller than „ No. 2.	Ruby-Nonpareil.
Diamant	„ 4	Nearly the same as	Diamond.
.....	„ 3	.....	Half Emerald Border.

By comparing the Table of Didot Points with the two previous Tables of Bodies in general use and those adopted as Standards, it will readily be seen how hopeless it was to make use of this system in any way (except in the case of Borders) to meet the requirements of Printers, either in London or the provinces; not even in a single case did the ten Bodies of Points exactly coincide with the bodies in general use, from English to Minikin, and if some of the intermediate bodies were of slight importance, to entirely upset such as Pica, Small Pica, Long Primer, Bourgeois, Brevier, Minion, Nonpareil, and Pearl, was a sufficient reason for the rejection of the system, and as the French height to paper was much above the English standard, there was little prospect of international trade; if French Type Founders wished to introduce their manufactures into England, they must adopt the English standards, and Continental trade could only be entertained by the English Founders when they were equally prepared to conform to the foreign standards in all respects.

The application of the system, however, to Borders, which are cast on bodies of Half-Emerald (three Didot Points), Emerald (six Points), and all the various multiples thereof up to eight-line Emerald (forty-eight Points), had the effect of greatly encouraging the production of new designs, both in France and Germany, as they were not only available on the Continent, but also in England by those who adopted the Didot Points for that class of work. The Victoria, Mosaic, Imperial, Oriental, and Combination Borders (V. & J. Figgins) are noticeable examples of these efforts; where the system was good it was adopted, for the body founts it failed, and was absolutely rejected.

But although the bodies of type in use in France and England could not be assimilated, and the great difference in height to paper prevented anything like international trade, except in cases where special casting could be resorted to, the skill of the French Punch Cutters, not only in Borders, but especially in ornamental and fancy engraving, was quickly recognised, and a reference to the principal Specimen Books will show to what extent the English Founders availed themselves of the readiness of their French contemporaries to sell strikes of their productions; most of the Tuscan, Ornamenteds, Extra Ornamenteds, Outlines, &c., came from abroad—many of them show remarkable skill in the engraving, and although the demand for that class of letter has now ceased, the share of the French must always be recognised in discussing the progress of Type Founding and Printing during the nineteenth century.

Having reviewed the principal matters of interest that occurred during the first half of the nineteenth century so far as Type Founding and Printing were concerned, the next stage to be noted is one of great and far reaching importance, namely, the introduction of machinery for casting type.

It is impossible to fix the precise dates when machines of various construction were introduced; many were invented, but most of them were condemned on trial because the work they produced was not sufficiently accurate. No prejudice existed on the part of the master Type Founders, who at that time were nearly all practical men; their chief concern was to secure a machine that would do its work well, and until they could get that, to continue the old methods.

A portion of the type used in printing the Catalogue of the Great Exhibition of 1851 was machine cast, but it was ten to fifteen years later before machinery was in general use, not because there was any objection to it in principle, or any marked disfavour on the part of the workmen, but because much experience was needed to overcome all the inaccuracies that were continually cropping up—variation in height to paper, difference in line, the difficulty of adapting matrices intended to work under a different system, the greater heat causing an expansion of the various portions of the machine, and the frequent adjustments of moulds, both for body and thickness, caused many of the most expert hands to despair, but eventually all difficulties were overcome, and type casting machinery was generally adopted, with the result that wages increased, while the prices of the finished and improved type were considerably reduced.

The next noticeable feature was the more general adoption of Stereotyping for Newspapers, especially the curved plates fixed to the cylinders of the fast rotary machines; many alterations and improvements were made in the casting of the type to meet the different requirements that ensued—the few important Type Founders who practically divided this class of trade between them, rejoiced in the altered conditions, for while they promptly adapted their plant to meet every necessity, there were few competitors, and perfection was speedily attained. As their orders were large and important, Newspaper Proprietors and Book Printers obtained for many years very excellent and exceptional value for all they required, the general standard was distinctly raised, and with improved machinery of all kinds for printing not only the large newspaper, but the smallest job, or even card, a distinct advance may be claimed in every department of Type Founding and Printing.

Revival of the Old Style Character.

About this period a desire arose to re-introduce the discarded old style faces, and many works and publications were put in hand in type cast from the original matrices, but the irregularity which was such a marked feature in the Romans and Italic of the first half of the eighteenth century, was not generally in favour, and after trying to improve them by re-cutting most of the more conspicuous characters, it was found necessary, if the new idea was to be developed, to cut entirely fresh series of modernised Old Style, which quickly came into general use; the cost, however, was considerable, not only to the Printer, who had thus to duplicate so many of his body founts, but also to the Type Founders—it would be indeed a moderate estimate to say that the five principal houses then in existence spent not less than ten thousand pounds in punches and matrices to meet the new taste, to which must be added a considerable sum for the addition of Titlings, Antiques, Memorials, Latins, and many other varieties, all considered necessary in old style printing, which held its own for many years, and is still regarded as neat and effective for general purposes, and especially suitable for high class and expensive works.

In addition to the modernised Old Styles and all that followed the developments of that revival, a full acquaintance with the Specimen Books of the principal Type Founders is necessary in order to thoroughly realise the many productions of utility and convenience that have from time to time appeared during the last thirty years of the century—complete series of Antiques, Sans-Serif, Latins, Titlings, Blacks, Scripts, and every variety of face and style, have received careful consideration by the different houses, and the type in which the languages of the world are expressed has not been neglected—Greek, Hebrew, Arabic, Hindustani, Malayan, Sindhi, Persian, Pushtu, Turkish, Punjabi, Tamil, Siamese, and Gaelic, have all claimed a considerable share of attention, and Classical, Oriental, and National printing of all kinds can now be undertaken without difficulty; the founts are up to date, and meet with the hearty approval of the best and most critical Scholars.

Music type, perhaps the most difficult of all to produce in a satisfactory manner, has also been successfully dealt with, and entirely new founts of Ruby, Diamond, and Gem have been added during the last few years to the previous collections. It may indeed be fairly claimed that the skill of the Type Founder has not been allowed to idle or rust, and in every department of the foundry improvement has been continuous and energy untiring.

Artistic Design.

The later years of the century had yet another change to witness. For some time the jobbing and fancy Printing followed the introduction of Old Style in various forms, the Tuscans, Ornamenteds, Extra Ornamenteds, Outlines, &c., &c., which had done such good service were gradually abandoned, and the Printers and their customers having acquired the habit of change, quickly patronised the new productions, no matter how fantastic or ridiculous; it was only necessary to call them "Artistic" and criticism was considered unnecessary or even out of place.

But eccentricity is not art, and many of the productions sent over from America and Germany can only be described as caricatures of the alphabet, a considerable number cannot be identified at all, a careful Reader must be tempted to mark a large proportion as "wrong fount," and as very many of them are cast on bodies that do not in any way agree with those in general use, great confusion is caused in every printing office where they have been introduced.

The general formation of the leading American Founders into one great "combine" appears to have resulted in a diminution of "output," and the market is now less flooded with artistic (?) atrocities from the other side of the Atlantic.

Electrotyping.

No review of the leading events of one hundred years would be complete without some reference to the results of Electrotyping. To the Printer it has been of great advantage, enabling him to produce much excellent work, and to preserve in case of need, the power of reprints and reproductions that without the aid of that process could not be possible, but to the Type Founder it has been disastrous; useful for the purpose of making matrices for combinations, accents, logotypes, and new productions from originals engraved by hand or machinery on metal, newspaper headings, sub-titles, and many similar perfectly legitimate purposes, it has been used against him by an unscrupulous and disreputable crew to pirate his productions and appropriate his designs, not only for the purpose of casting type from matrices so obtained, but also making a trade of selling matrices and duplicates to others, while the original designer and producer, no matter what expenses he may have incurred, is thus plundered without a shadow of redress—there is no law that can be invoked against this class of pirate. Registration may be procured for a new design of a scraper or door knocker, but a fount of type that cost hundreds of

pounds to produce, is at the mercy of any unscrupulous person who can procure or steal a small quantity, and then at a nominal cost, reproduce it and sell it, and even boast of and advertise it, as his own creation.

It is not possible, at least from the Type Founder's point of view, to chronicle the events of the later years of the century with the same amount of interest and appreciation as the first eighty or ninety years so well merited; the introduction of machinery of various kinds for the production of type that is not worthy of the name, and the adoption of machinery that dispenses altogether with the Type Founder, Compositor, and Type, could not in any case be regarded with favour by the "disestablished," but the extent to which these new devices have lowered the standard of printing is a serious matter, and no one who appreciated the excellent work of the early years of the century, and followed with interest the improvements that so quickly succeeded each other, can regard without unfeigned regret and disappointment the marked deterioration that is evident in the declining years of the nineteenth century.

It is quite true that this is not wholly due to the methods now adopted in this country—such enactments as the American Copyright Law have much to answer for. To enable authors to obtain "Copyright" in the United States their works must be set up in America; stereoplates only are sent here, and "printed by ——" now means much too frequently, not that the Printer produced the book, but that he undertook to print the sheets from American plates, and had no further responsibility. Can it be a matter of surprise that in these cases a falling off in quality is a marked feature? and that from inferior plates, on bad paper, with foreign ink, there is no pleasure in purchasing a book that in its production has no merit to recommend it, and in which the only satisfactory feature is that space for it will not be required for long, as it will soon fade and perhaps disintegrate, and posterity may never have the chance of expressing its horror at the cheap but perhaps popular book thought good enough for the latter part of the nineteenth century?

The outlook at the close of the century is not, therefore, a happy or contented one; will the coming years be productive of a new and better and more hopeful period? when the best and most enlightened intellects will again combine to render good, faithful, and honest service, receiving as their reward a just appreciation of their efforts, added to the knowledge and conviction that their productions, the result of all their best endeavours, are well calculated to promote advancement, and lead to the perfection of all the various industries connected with Type Founding, Printing, and kindred trades.

American Points.

BODY.	Variations.	English Equivalent.
14 Points ...	Much larger than	English Standard.
12 " ...	Slightly under	Pica Standard, No. 1.
11 " ...	Nominally the same as	" " No. 2.
10 " ...	Much larger than	Small Pica Standard.
9 " ...	" " "	Long Primer, Standard, No. 1.
8 " ...	" " "	" " " No. 2.
7 " ...	" " "	Bourgeois Standard.
6 " ...	Very slightly full to	Brevier Standard, No. 1.
5 " ...	Very full to	" " No. 2.
4 " ...	Smaller than	Minion Standard.
3 " ...	Larger than	Emerald.
2 " ...	Slightly under	Nonpareil, Standard, No. 1.
1 " ...	Nominally the same as	" " No. 2.
.....	Body not provided for	Ruby-Nonpareil.
.....	" " "	Ruby.
.....	Much larger than	Pearl.
.....	Body not provided for	Diamond.
.....	Very slightly full to	Half Brevier, Standard, No. 1.
.....	Very full to	" " " No. 2.
.....	Body not provided for	Minikin.
.....	Smaller than	4 to Pica Standard.

Standard, No. 1, is that of V. & J. Figgins; Standard, No. 2, is the adopted Standard of some Type Founders.

THE latest scare, however, is the desire expressed by a few Printers to again upset all the existing "Standards" and Type bodies that have taken sixty years to establish and consolidate, and to substitute the American Bodies, none of which, as will be seen by a glance at the Table of American Points, coincide with those now in general use; the system in fact has all the disadvantages of the Didot Points already considered; the unit is too large, and while the result is scarcely in harmony with any of the existing Standards, it fails entirely to provide for many necessary bodies without quickly relapsing into fractions of Points, which add greatly to the general confusion without any corresponding advantage.

Pica, or twelve Points, is supposed to coincide with the Standard, No. 2, and six Points with Nonpareil Standard, No. 2, being respectively six and twelve to the inch, but all the others are either much larger, or are not provided for at all. It must also be borne in mind that the measurements to the inch do not all agree; many of them, although nominally exact, differ with the castings of various Founders in proportion as the accepted inch or the Standard (Board of Trade) inch has been resorted to as the guide for the Point bodies.

This Point system, moreover, would not lead, if adopted, to reciprocity of trade with the United States of America, for the high protective tariff in vogue there entirely shuts the door against anything of the kind, and thus, while the system might cause confusion in many offices here, it could have no other effect, except perhaps to raise the prices of type to the much higher American rates, which are very considerably in excess of those charged by the English Founders.

If the Printers could at once discard all the type, formes, &c., that they possess, and replace them with everything new on the altered system, they would only gain a purely technical advantage, without any really useful or practical result. It should also be noted that they would at once shut themselves out from a vast number of present productions of great value and utility, or be compelled to run the two systems, Standard and Point, side by side; confusion would exist in every office, and bodies nevertheless would have to be regulated by what was required rather than by technical accuracy.

There is, however, another strong argument against the attempted introduction of a system so entirely out of harmony with existing facts, and that is the question of width. The American Point system does not coincide with the present Standards; it enlarges all the nominal bodies, and thus makes an important difference in the width of every line that is set to "ems," all tables would be wider as well as deeper, and none of the existing sorts dependent on the em or en could be utilised. Spaces, rules, leaders, quads., figures, fractions, would be entirely changed, accurate reprints would be impossible, and the introduction of a fount of music into a "Point Office" would at once upset the system, for as every sort is cast to a definite width, but still a proportion of its own body, no alteration whatever is possible. No better illustration can be given of the disastrous and costly effect of attempting to carry out a system so thoroughly unnecessary, quite at variance with everything in the plant of a well-equipped office, and possessing no merit whatever, except perhaps that which is generally conceded to an aspiration or a theory.

Within the range of mechanical possibility Printers can no doubt have founts cast to any body they think fit to prescribe, and as of old, quantity and price would be the main features of the transaction, but the general adoption of such a system is highly improbable; any large office attempting such a transformation would not entirely succeed, and at the end of perhaps fifty years would find Standards and Points side by side, or if strictly confined to the latter, would be compelled to refuse much important work for want of the necessary equipment.

Such is a brief Review of the chief features of interest to the Type Founder and Printer in their mutual relations during the nineteenth century; few important industries have been subjected to so many attacks and such costly changes, great improvements have taken place, but inferior work has met with a reception it did not merit; excellence receives little encouragement, and strong, united, and well-directed efforts are required if printing is to hold its own as a really artistic and interesting study to suit refined and educated tastes, to produce books worth possessing and preserving, and thus aid in bringing to perfection those arts that have done so much for the human race, and have still a grand future before them if rightly understood and cultivated with zeal, devotion, and intelligence.

